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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/757,519 01/09/01 HORNE

C N19.12-0051

EXAMINER

IM52/0706

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STRICKLAND, J
ART UNIT PAPER NUMBER

1754
DATE MAILED:

A
07/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/757,519

Applicant(s)

HORNE ET AL.

Examiner

Jonas N Strickland

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-18, and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-18 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6, 7, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 7 and 23 recite "effectively no particles". This language is unclear and indefinite. There are either particles or no particles within the certain diameter.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-3, 6-18, and 22-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S.

Patent No. 6,225,007.

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Although the conflicting claims are not identical, they are not patentably distinct from each other because Horne et al. (US Patent 6,225,007) claims a collection of particles comprising metal vanadium oxides wherein the metal vanadium oxide is selected from the copper vanadium oxide, silver vanadium oxide, gold vanadium oxide and combinations thereof having an average diameter less than 1 micron. Horne et al also claims with respect to instant claims 2 and 3, wherein the particles have an average diameter from about 5 nm to about 100 nm and also from about 5 nm to about 50 nm (see claims 2 and 3).

With respect to instant claims 6 and 7, it would have been obvious wherein no particles have a diameter greater than about four times or two times the average diameter of the collection particles, because Horne claims the collection of particles less than about 1 particle in 10^6 have a diameter greater than about four and two times the average diameter of the collection of particles (see claims 6 and 7).

With respect to instant claim 17, Horne et al claims a battery comprising a positive electrode having active particles comprising metal vanadium oxide within a binder having an average diameter less than about 1 micron (see claim 11).

While Horne does not claim a method of producing particles of metal vanadium oxide comprising heating a mixture of vanadium oxide particles with a non-vanadium metal compound, Horne claims a silver vanadium oxide having the formula $\text{Ag}_2\text{V}_4\text{O}_{11}$. Therefore, it would have been obvious to one of ordinary skill in the art to produce a metal vanadium oxide by heating a mixture of silver nitrate and crystalline V_2O_5 .

Claim Rejections - 35 USC § 102

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-10, 17, and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Koksbang (US Patent 5,549,880).

Koksbang discloses a lithium-vanadium oxide active material having an electrolyte/binder support (col. 1, lines 22-29). The reference teaches that the product of the invention is in a small particle size on the order of 0.1 to 5 microns, and typically less than 10 microns (col. 2, lines 58-60). The battery has electrically conductive materials. With respect to claim 10, Koksbang teaches wherein the lithium alkoxide is heated with the vanadium oxide compound (see abstract). Furthermore, Koksbang teaches that the particle size increases the performance of the cathode by not allowing large particles to break, which occurs during intercalation/disintercalation cycles; decreasing contact loss; improving contact between the active material and the conductive material, which allows higher current to be applied (col. 6, line 58 - col. 7, line 4).

With respect to claims 6-9 and 23, it would be inherent based on the diameter of the metal vanadium particles as taught by Koksbang, for the collection of particles and the battery to have a diameter greater than about 4 times the average diameter of the collection particles and to maintain the claimed distribution of particle sizes, because

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Koksbang teaches a metal vanadium oxide having an average diameter less than about 1 micron.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH. 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9762 for regular communications and 703-872-9762 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.



Jonas N. Strickland
June 30, 2001



STEVEN P. GRIFFIN
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